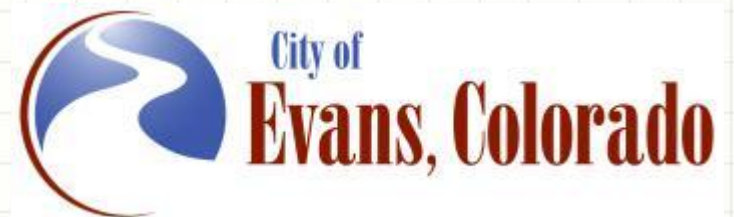




# STRATEGIC IT PLAN

December, 2012

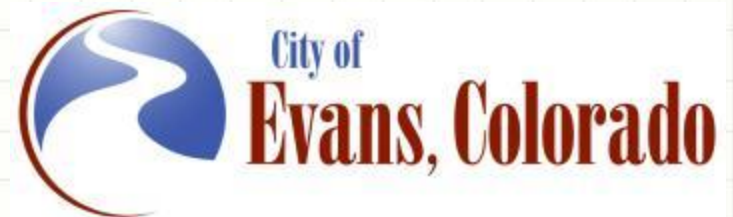


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# INTRODUCTION



# Initiative Objectives

- Provide a framework and a set of strategies (the Strategic IT Plan) for the effective utilization and management of information technology throughout the City.
- Support the overall, continuing strategic initiative of the City to increase its customer services capacity with targeted increased use of Information Technology.
- Provide a foundation for meaningful and effective annual tactical plans for Information Technology throughout the City's organizational units that support the City's annual goals and objectives.
- Establish a continuing monitoring and updating process for the plan by City leadership that reflects the nature of a 'living and breathing' document.

# City Mission/Values Statement

- **Our Mission:**

To deliver sustainable, citizen-driven services for the health, safety, and welfare of the community.

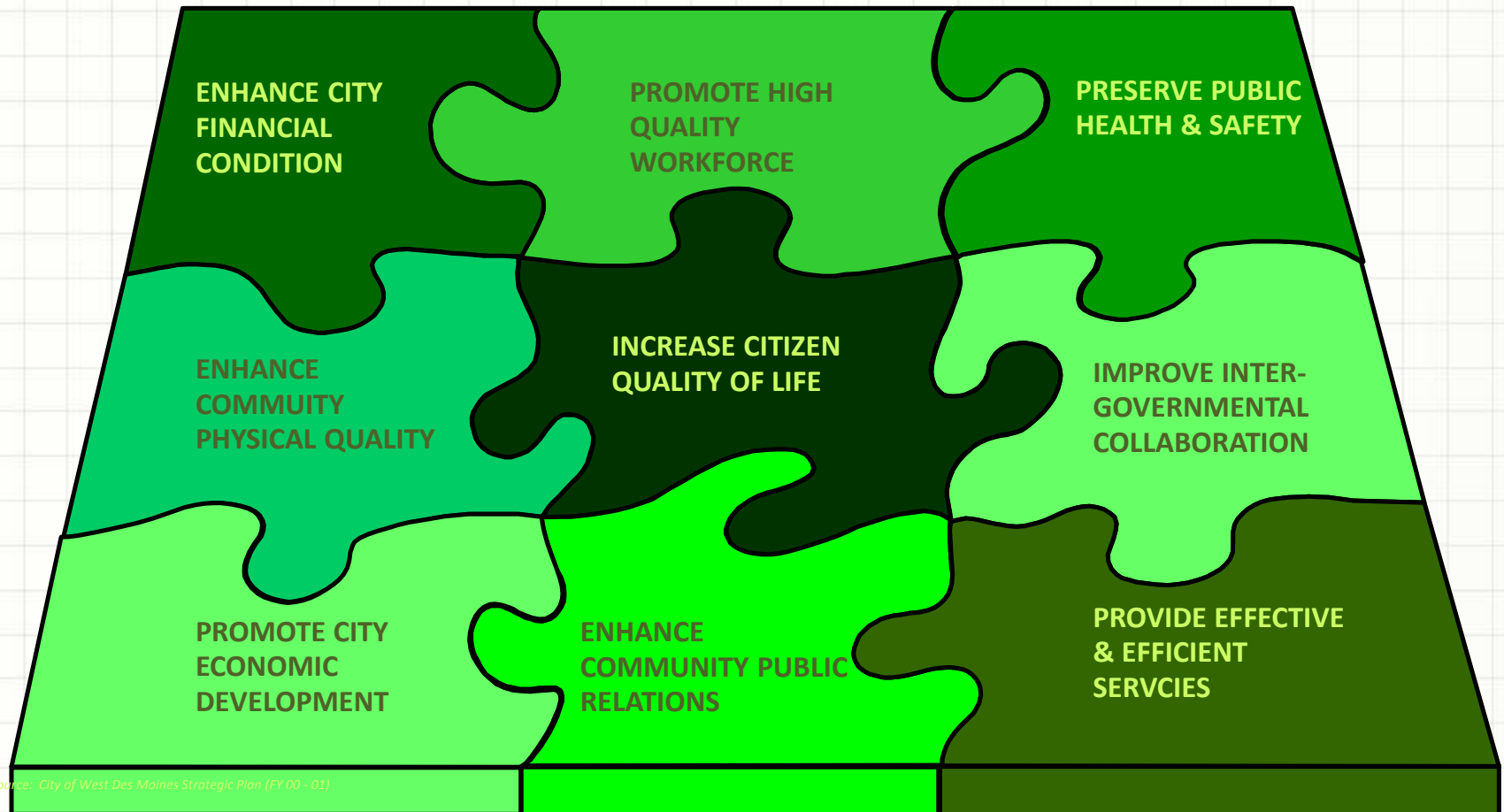
- **Values**

We, the employees of the City of Evans, are proudly committed to, and guided by, the following core values in achieving our mission:

- Respect for life and human diversity
- Organizational and personal integrity
- Excellence in service
- Building community relationships
- Rewarding innovation
- Teamwork – both internally and externally
- Service excellence



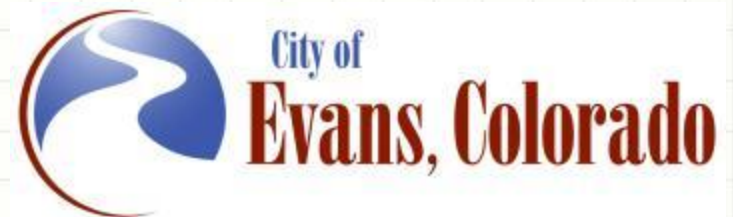
# The City's Strategic Goals



- The IT strategy must inherently support the City's strategic goals:



# THE CITY'S VALUE STREAMS



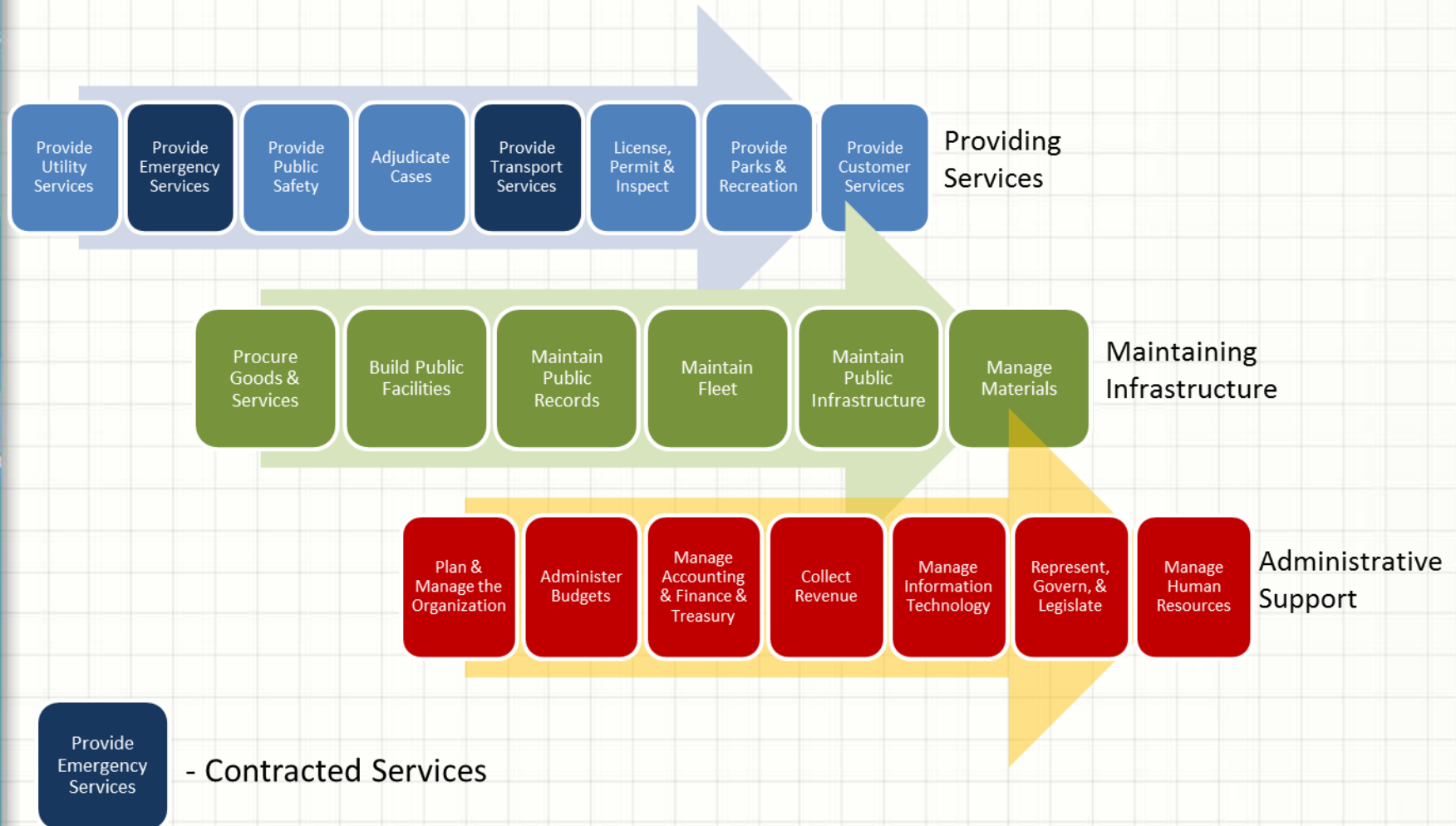
# Introduction to the City's Value Streams

- To accomplish the City's mission, the City structures its activities into very specific value streams. A value stream is a chain of business processes, activities, and tasks that an organization operating in a specific industry performs in order to deliver something valuable (product or service). Services pass through activities of a stream, and at each activity the service gains some value.
- Streams of activities give the service more added value than the sum of the independent activities' values.
- Typically, the described value stream and the documentation of processes support any future operating assessments, audits, and systemization.



# The City's Value Streams

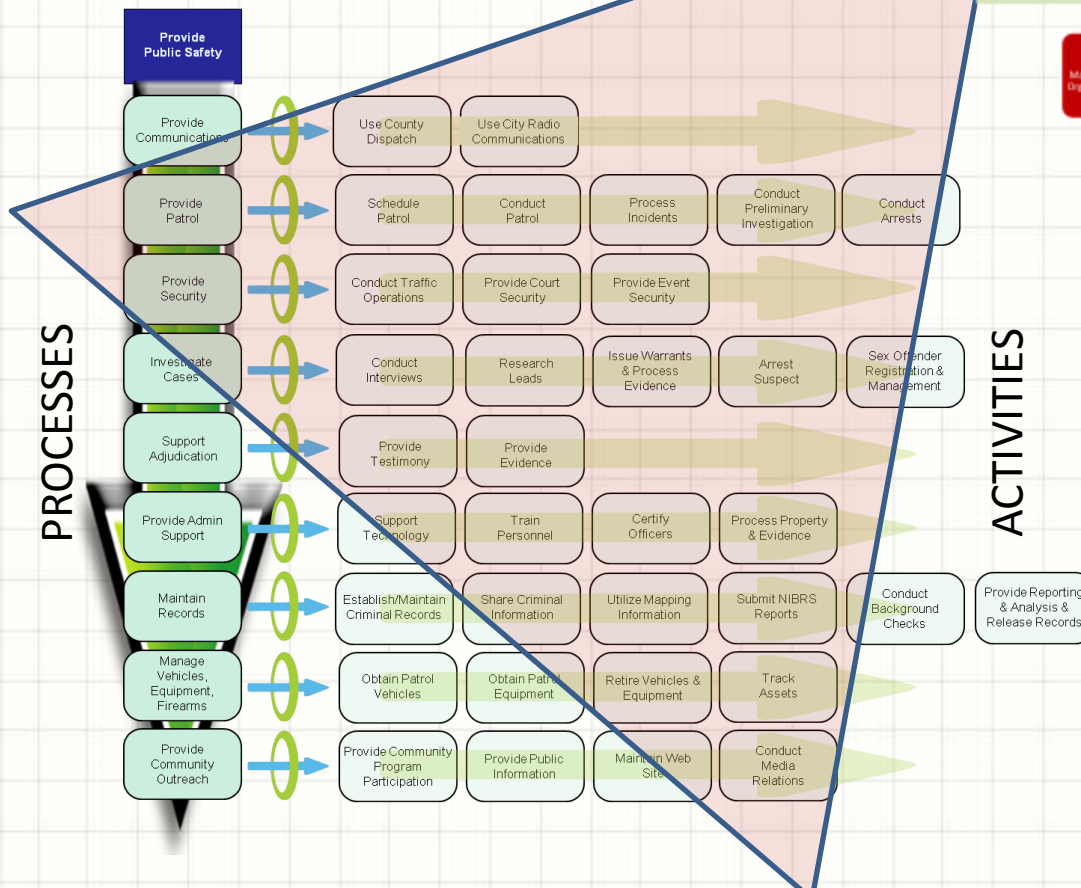
Bringing Constituent Value Through...



# Value Stream Component Processes

Each Value Stream Component is 'decomposed' into processes and activities. The activities can be manually performed or automated.

Bringing Constituent Value Through...



Example is 'Provide Public Safety' (Police Department); All of the Value Stream Components with Process and Activity detail are provided under separate cover.

# Increasing Value to the Citizen with IT

- Apply the classic process improvement principle: Information Technology as the process 'Enabler'.
- IT is only useful if it helps people do their work – it must focus on processes not features.
- IT helps make sure processes are structured around outcomes, not tasks.
- Link parallel activities with IT instead of trying to integrate separate outputs.
- IT puts decision points where the work is done and builds control into the activity.
- IT helps capture information once, and at the source.

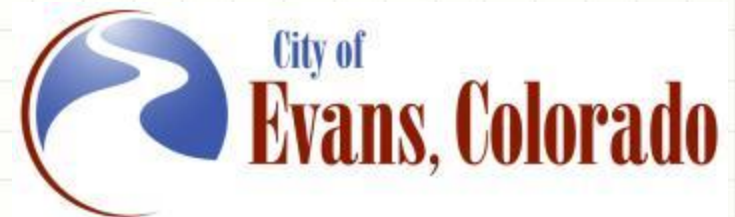
# IT Impacts on Processes

- Automating by reducing labor from a process
- Capturing information for decision-making
- Changing process sequence and thus streamlining
- Enabling parallelism – multiple thread activities
- Closely tracking & monitoring detail activities that are too fast or detailed for human capabilities
- Increasing analytical examination of information
- Coordinating processes across geographical dimensions
- Providing linkages and coordination between various processes, activities, and tasks
- Capturing and distributing intellectual ‘capital’
- Removing intermediaries from a process





## THE CITY'S CURRENT TECHNOLOGY STATE





# Current Desktop Technology Enablers

Department	Computers	Printers, Faxes, Copiers
Admin Svcs	17	5
City Mgmt, Council, includes spares	15	2
Community Development, Planning	5	2
Customer Service Unit	4	4
Engineering	5	2
Finance	7	6
Fire	11	6
HR	4	2
Parks & Rec, incl Seniors	14	6
Police includes 8 patrol	30	11
Public Works & Wastewater	8	7
Shops	5	2
Total	125	55

Full time positions: 74

Average part-time: 50

# Current Technology Infrastructure

Component	Devices
Servers	9
Routers	2
Backup Devices	3
Uninterruptable Power Supplies	2

# Current Major Process Enablers

Application	Major Use/User	Condition
ActiveNet	Recreation Mgmt	To Be Replaced
ADP Payroll, HR	HR Payroll	OK
ArcGIS	Engineering/Mapping	OK
CityView	City Planning, Permitting	Can be Extended Citywide
Emergency Reporting System	Fire – Incident Tracking	OK
emGov	Finance	OK, Some Extension Capabilities: Performance Reporting, Dashboards, Modeling, Cost Accounting
InCode Central	Courts Case Mgmt	OK, Should Connect
Maxicom2	Irrigation Tracking	Should be Replaced
MS Office	Ubiquitous	OK
NetRMS	Police – Incident Tracking	Should Upgrade, Integrate
Spillman	Police/Fire - Dispatch	OK, Should Integrate

# “And the Survey Says: What Works Well”

- Microsoft Office is current
- Satisfied with primary application (74%)
  - CityView
  - emGov
  - GIS
  - InCode
  - NetRMS
- Hardware replacement cycle meets needs and expectations (61%)
- Satisfied with vendor support of applications (80% Satisfactory or better)
- Satisfied with internally/contracted support of applications (75% Satisfactory or better)

# “And the Survey Says: What Doesn’t Work”

- Not using all of emGov and netRMS capabilities
- Don’t how to use emGov – need training
- Difficult to get useful information from emGov
- Several applications appear slow in response time
- Need to re-enter data from one system to another often
- Need to confirm/reconcile data between systems too much
- Maxicom is outdated

‘What technology does not work for you?’

ADP Limitations	CAD
City View	emGov
Financial Management	Laser Fiche
Net RMS	Printing
Oriador (PD Scheduling)	Spillman Mobile



# “And the Survey Says: Need Automation”

What activities should be automated?

Work Flow of Forms for Approval	Evacuation & Floodplain Dev Permitting	Blueprints to Find Waterlines
Attach Docs to Electronic Records	Remote Control of irrigation Systems	Research of Owner Information
Input Tickets	Time Tracking & Storage	Work Orders
Inventory of Assets	Monthly Newsletter	Building Permits
Water Rights Accounting	Field Data Collection	Inspection Documentation
Purchase Orders	Use of Cycle of Assets	Template for Form Letters
Sales Tax Receipting	Traffic Accident Reports	Assignment Tracking
PO Amendments	Preventative Maintenance	Maintenance of Assets
Notice of Violation # Tracking	Change Orders	Contract Execution Signatures
Workflow	Capture/Track Field Data	GIS-based Asset Management
Mgmt Reporting (Dashboard)	Pavement Inspection	
Service Call History by Address	Invoice Review/Approval	Hazardous Tasks

What new technologies are being contemplated by your department?

Tablets/Laptops	ARC GIS online	Registrations Software
E Ticketing (Brazos)	Smartphones	SCADA
Update netRMS	File Sharing Capabilities	Maintenance Mgmt Systems
Replace Access/City View	EmGov .Net Conversion	Primer One
Fixed Base Meter Reading	Web-Based Crime Reporting	Code Compliance System

# “And the Survey Says: Need Access”

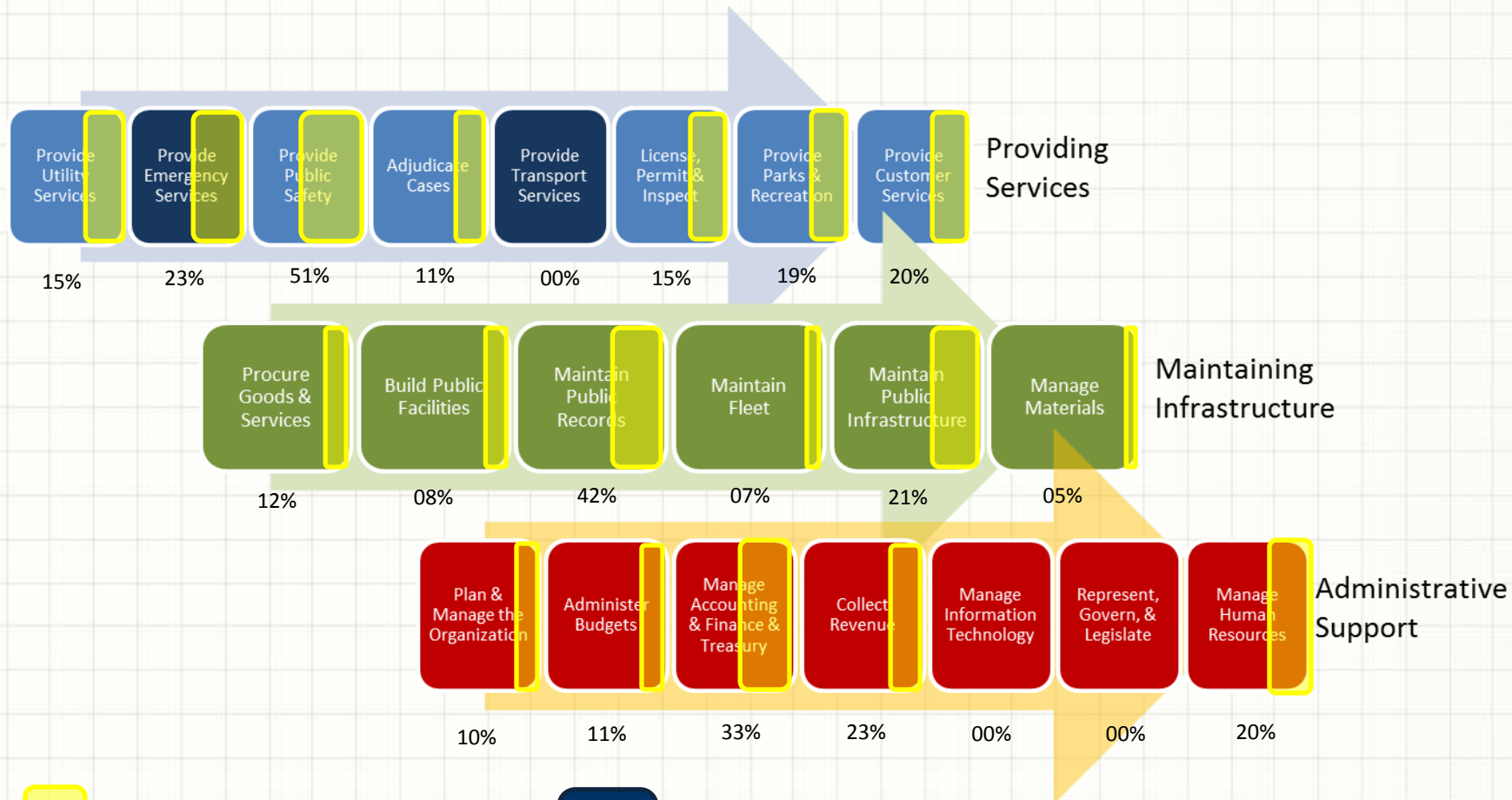
Utility Billing	Arc Info	Arc Reader
EmGov Budgeting	More EmGov	Long Range Plan Budget
Water Rights Issues	Dashboard Applications	City View
GIS	CBIC	Water Billing
Courts Mgmt- Incident	Visio	Code Enforcement
Website	Courts	

Also:

- 20% of respondents indicate they cannot easily get the data needed from the systems they use.
- 39% of respondents indicate dissatisfaction with the current hardware upgrade/replacement cycle ('we get hand me downs).

# Value Component Automation Degree

Bringing Constituent Value Through...



- Degree of Automation  
- 80% = Nirvana



- Outsourced

# The EVANS IT SWOT Analysis

## Strengths:

- Readiness to address IT
- Staff is becoming more IT savvy
- City size makes it more flexible
- Quite a few 'low hanging fruit'
- Relatively current infrastructure technology
- Strong safety net (i.e. county)
- Strong individual skills and knowledge
- City Council supportive of IT

## Weaknesses:

- Not a lot of IT staff depth
- Islands of automation: lacking interoperability, duplication of effort/data
- Data sharing is not fully automated
- No formal internal IT organization
- Lack of IT cross-training
- Staff protection of 'silo' data/systems
- Limited backup of 'corporate intelligence'
- Lack of IT-focused funding (revenue stream)
- Reactive instead of proactive (squeaky wheel gets the grease)
- Project Management discipline not actively applied, No Portfolio Mgmt

## Opportunities:

- Leverage current IGA's (i.e. meter reading)
- Social media – connect to constituents
- Mobile technology – tablets/Smartphones in the field
- Increased Web exposure
- Leveraging IT to increase city capacity
- Becoming revenue positive from a timing perspective
- Cloud computing pushes responsibility of hardware but loss of security
- Staff virtualization
- Wireless / paperless

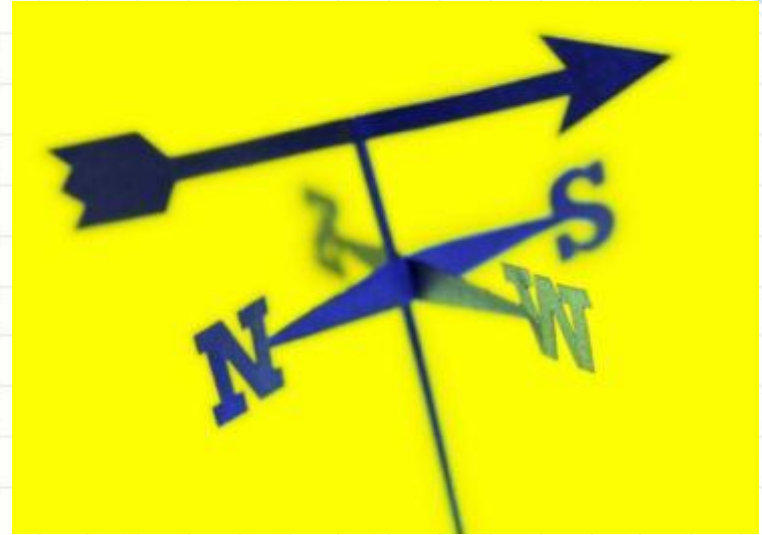
## Threats:

- Staff reluctance to change
- Physical threats – Natural Disasters, Power Loss, Flooding
- Technology changes/improvements faster than can be absorbed
- Breach of confidential data – non-compliance
- Data integrity security breach
- Unfunded mandates requiring IT change or holding back IT progress
- Legal discovery request
- Negative effect of 'chasing' IT
- Impact on culture

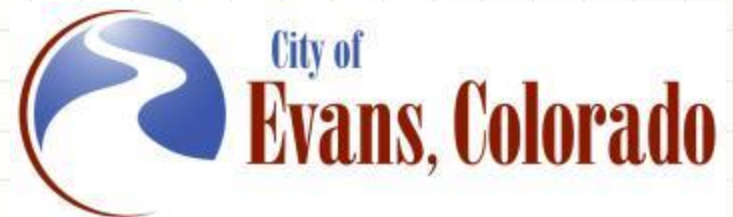
## Technology Trends:

Cloud Computing – Data Sharing, Collaboration, Data Integrity, Security, Security, Public vs. Private  
Virtualization – Economies of Scale, Scalability,  
Mobilization – Staff Virtualization, Security, Replaceable Parts  
Analytics – Business Metrics; Dashboards, Drilldown  
Software as a Service, Network as a Service, Platform as a Service, Colocation  
Service Oriented Architecture – Customer Service Focus  
Sustainability – Greening of IT  
Social Network - Ubiquity  
Increasing Identify Theft





## THE CITY'S DIRECTION

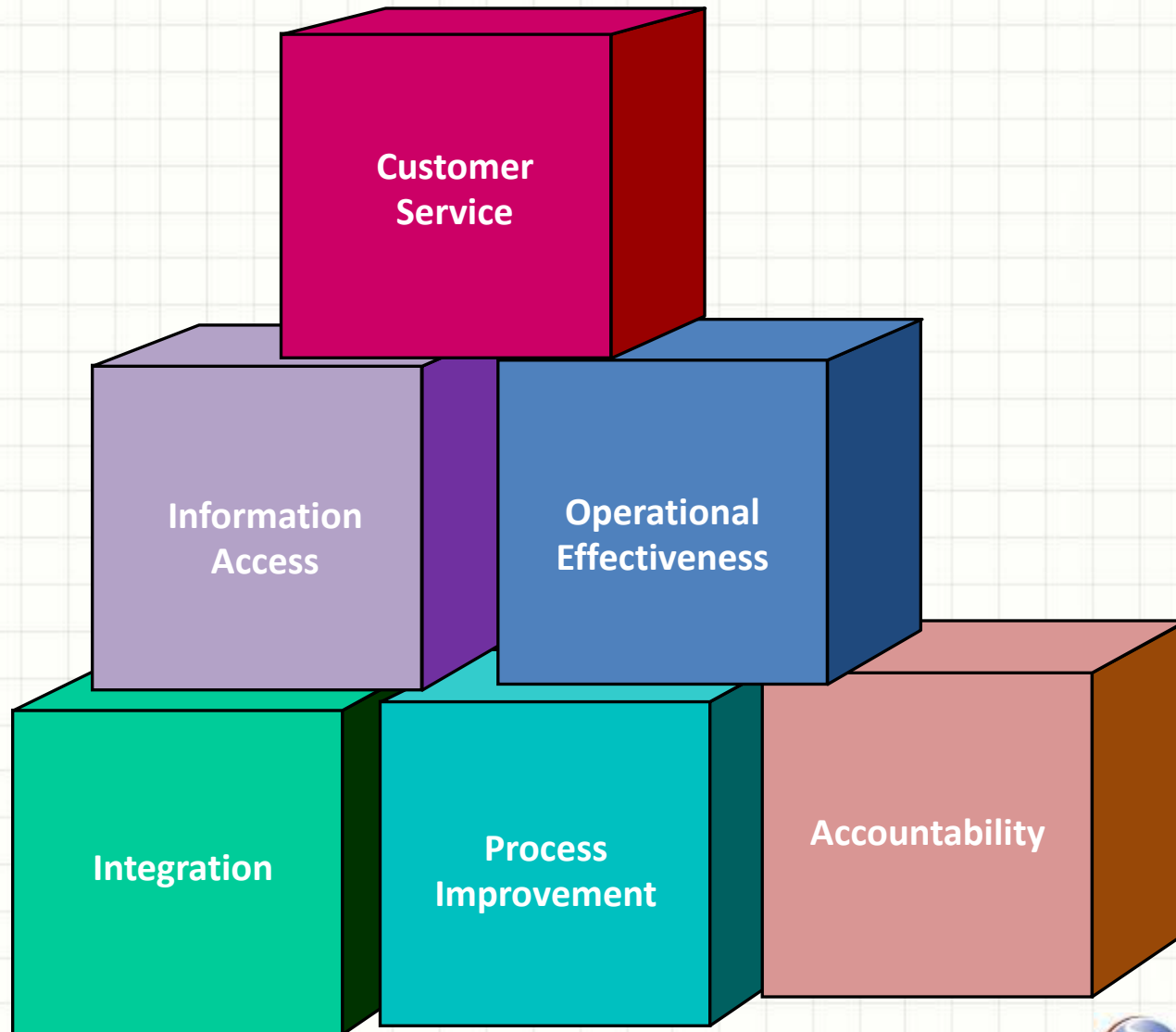




# Strategic IT Direction

- The Information Systems Strategy is a high level blueprint for the information systems needed to support the vision, mission and goals of the City. It guides the decisions regarding the acquisition and deployment of computer hardware, software and staff.
- The strategic direction is built on specific IT strategies, each being drivers to strategic IT initiatives:
  - **Information Architecture Strategy** - the types of data and the structure in which they are housed
  - **Application Architecture Strategy** - the form and nature of the software packages that are used to create, maintain and manipulate the data
  - **Technology Architecture Strategy** - the computing infrastructure (*hardware and network*) that supports the data and applications
  - **IT Resources Strategy** - the staff, skills, development, management and control structures of for managing and guiding the City's information technology
- Requirements and technological capability change rapidly, so an Information Systems Strategy must be dynamic. The planned projects, priorities, and schedule should be updated semi-annually and the initiatives should be updated annually.
- Statements of strategic direction are specified for each of the above architecture strategies.

# The City's IT Strategy Building Blocks



- The IT Strategy must also be based upon these core “building blocks”.

# Information Architecture Strategy

- *Evaluate future information systems with regard to having location-driven data structures and integration capability, using the inplace GIS system.*
  - *Confirm the capability of all operational services systems to identify and track service locations.*
  - *Determine the information allocation/distribution models required to match non-location services to locations*
  - *Determine the number of additional GIS layers required.*
- *Establish a centralized repository of data common to all City processes, linking all data to location (address).*
  - *Create a data warehouse/data mart of citizen services related data.*
  - *Expand the City's data mart of all location related data (GIS).*
- *Recognize the need for 'process'- oriented data requirements.*
  - *Release department controlled data to process models that cross organizational boundaries (permitting, fines, licensing).*
- *Data will be 'normalized' as much as possible to reduce duplications of data.*
  - *Focus on providing data to systems once, eliminating the duplication of entering data. Connect automated solutions so it is not required to re-enter data.*

# Information Mapping

Information Grouping	Information Description
Citizen/Customer Information	Name & Demographic Data of Evans Citizens & Customers Receiving City Services
Crime/Incident Data	Identifying Data (Perpetrator/Victim), Incident Descriptions, Location Data, Case Investigation Follow-up, Evidence
Court Cases	Defendants, Case, Disposition, Fines
Geographical/Location Information	Mapping, Relative Positioning Data (coordinates, zoning, jurisdiction)
Property/Address Information	Real property (rural, public, residential, commercial, industrial), Information Directly Linked to an Address: Permits, Inspections, Utilities, Ownership, Occupancy, Taxation
Employee Information	Demographics, Payroll, Time & Attendance, Benefits, Pension
Infrastructure Assets	Locations of Streets, Sewer, Signs, Signals, Street Lights, Structures, Bridges, Culverts
Equipment Assets	Vehicles, Tools, Computers, Furniture, Copiers, Printers, Weapons, Cameras, Phones, Radios, Safety Equipment
Infrastructure Equipment	Office Furniture
Financial	General Ledger, AP, AR, Revenue, Encumbrances, Purchases, Budgets
Project/Work Order Data	Investigations, Construction, System Development, Repairs, Contracts
Material & Supplies	Equipment Parts, Supplies, Tools, Purchasing, Accounts Payable, Fuel
Utility Information	Water, Wastewater, Irrigation
Vendor Information	Suppliers, Contractors, Consultants, Governments, Contracts
Cemetery Information	Purchaser, Internee
City Code, Ordinances	City Codes, Ordinances, Policies

- Information Architecture relates to what types of data the City captures, processes, references, and reports, how it is maintained and stored, and how often it is updated.

# Application Architecture Strategy

- *Pursue packaged software solutions.*
  - Move the many spreadsheet-based applications to packaged software solutions (scheduling, budgeting, asset tracking, etc.).
- *Update/upgrade vendor products upon vendor release.*
  - Keep packaged software current with vendor releases to assure continuity of warranties and minimizing the need for excessive conversion activity if/when versions are 'skipped'.
- *Provide information access using web, query and other reporting tools.*
  - Connect the City's 'Islands of Automation' by applying the 'lowest common denominator for information (location), allowing access across application boundaries.
  - Automate the flow of review and approval (workflow).
- *Take advantage of application-driven process best practices.*
  - Review the processes supported by the new applications to improve operating efficiency and effectiveness, thus taking advantage of the best practices represented by the solution.
- *Minimize modifications to vendor software.*
  - Take advantage of best practices represented by the software and maintain compatibility of the software to future releases and vendor warranties.



# Technology Architecture Strategy

- *Select technology based upon application requirements.*
  - The City will acquire and implement the technology appropriate to support the application systems functionality it needs and selects (special purpose solutions)
- *Pursue an 'open architecture' for solutions other than special purpose solutions.*
  - The City will pursue an open architecture (*i.e., non-proprietary, standard*) thereby providing increased flexibility and scalability in the implementation of technology
- *Keep abreast of emerging technologies.*
  - The City will continually evaluate new and emerging technologies to determine their applicability to the City's operations. This process can be smoothed by partnering with strategic vendors (special purpose solutions).
- *Use compatible technologies.*
  - To the extent possible, the City will standardize on technologies across business processes. At a minimum, the City will assure that various technologies are compatible both among various systems as well as backward compatible to older versions of the same system.
- *Move to the Cloud.*
  - Take advantage of data sharing, collaboration, user-friendly, research, inexpensive, data storage, speed, secure, and broad access (desktop, laptop, tablet, Smartphone, etc.) capabilities the Cloud provides.

# IT Resources Strategy

- *Increase the degree of imbedding technology into the City's personnel 'toolkit'.*
- *Increase staff's day-to-day skills/abilities to use technology (training).*
- *Reduce reliance on technology contractors. Shift the reliance on contracted resources for standard, day-to-day technology support (hardware installations, hardware maintenance, network reliability) to City employee(s).*
- *Continue outsourcing technology specialist resources.*
- *Focus internal needs for technology specialists to provide 'care and feeding' by moving databases to the Cloud and continue shifting application software to the Software as a Service (SaaS) model.*

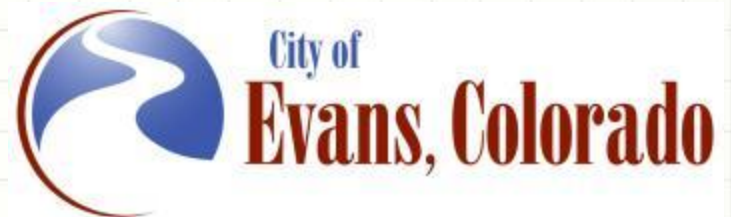
# The City's Strategic IT Initiatives

- **Provide an Annual Citizen's Report Card of City Services:** Establish internal City cost and revenue models that present the revenue received from the citizen/business (taxes, fees, fines) compared to the cost of all services provided to the respective citizen/business within City boundaries.
- **Increase Technology as a Process Enabler:** Increase the use of technology to enhance and improve the City's business processes, focusing on process effectiveness and efficiency improvements. Examples include replacing mission-critical spreadsheets with packaged software, increasing web usage, using the 'cloud', connecting applications (ODBC), using OLAP for data mining, and using SaaS.
- **Increase Employee Productivity:** Improve employee productivity by effectively utilizing standardized desktop, mobile, or handheld electronic tools/devices as well as data file transfer methodologies, the use of automated workflow, and increased employee access to a broader selection of data repositories throughout the City. This includes using 'unused' capabilities of inplace software and having 'utility' system capability/solutions that do not require significant technology 'care & feeding' (such as Software as a Service – SaaS).
- **Keep Technology Current:** Upgrade and/or replace technology as it becomes marginally productive with more modern and capable systems on a planned obsolescence schedule.
- **Streamline Paperwork or Go Paperless:** Capture, process, report and archive information by electronic means such as scanning, imaging, RFID, bar-coding, video, facial recognition, automated workflow, electronic dashboards, and voice recognition.



future?

# THE CITY'S FUTURE STATE



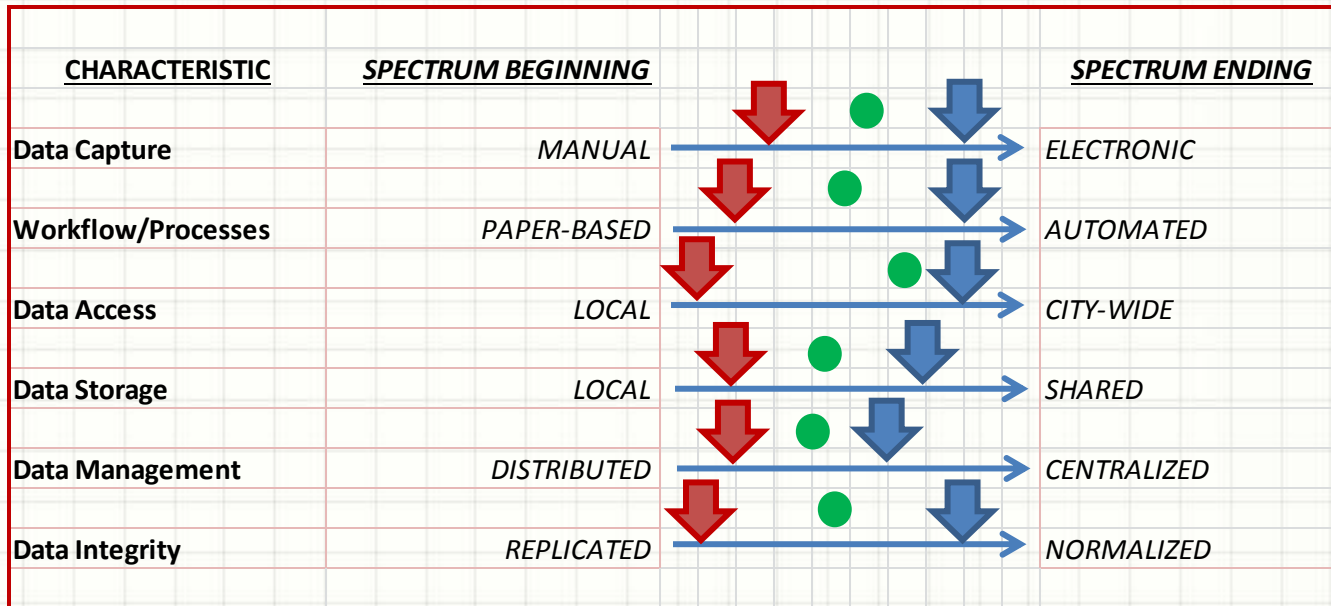


# The City's Future State

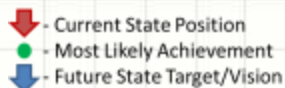
- City revenues will clearly match City cost of services.
- Citizens will understand the extent of services received for their respective payments (taxes, fines, fees).
- City personnel changes will be tied to changes in the extent of services provided to the citizens.
- City personnel productivity will be increased.
- The City will be assured of appropriate data integrity supported by 'one version of the truth', data capture at the source, a paperless environment, and elimination of duplicate data entry.
- 'Untying' operations personnel from in-office desktop computers by providing computing capability 'in the field (Tablets, Smartphones).
- Reducing the 'keying' of data entry with increased use of video, voice recognition, sensors, cameras.
- The City will be able to increase its decision-making with management information by applying balanced scorecarding, dashboarding, data mining, and data drill-down.
- Focus of City Technology support staff on hardware and networking rather than applications.



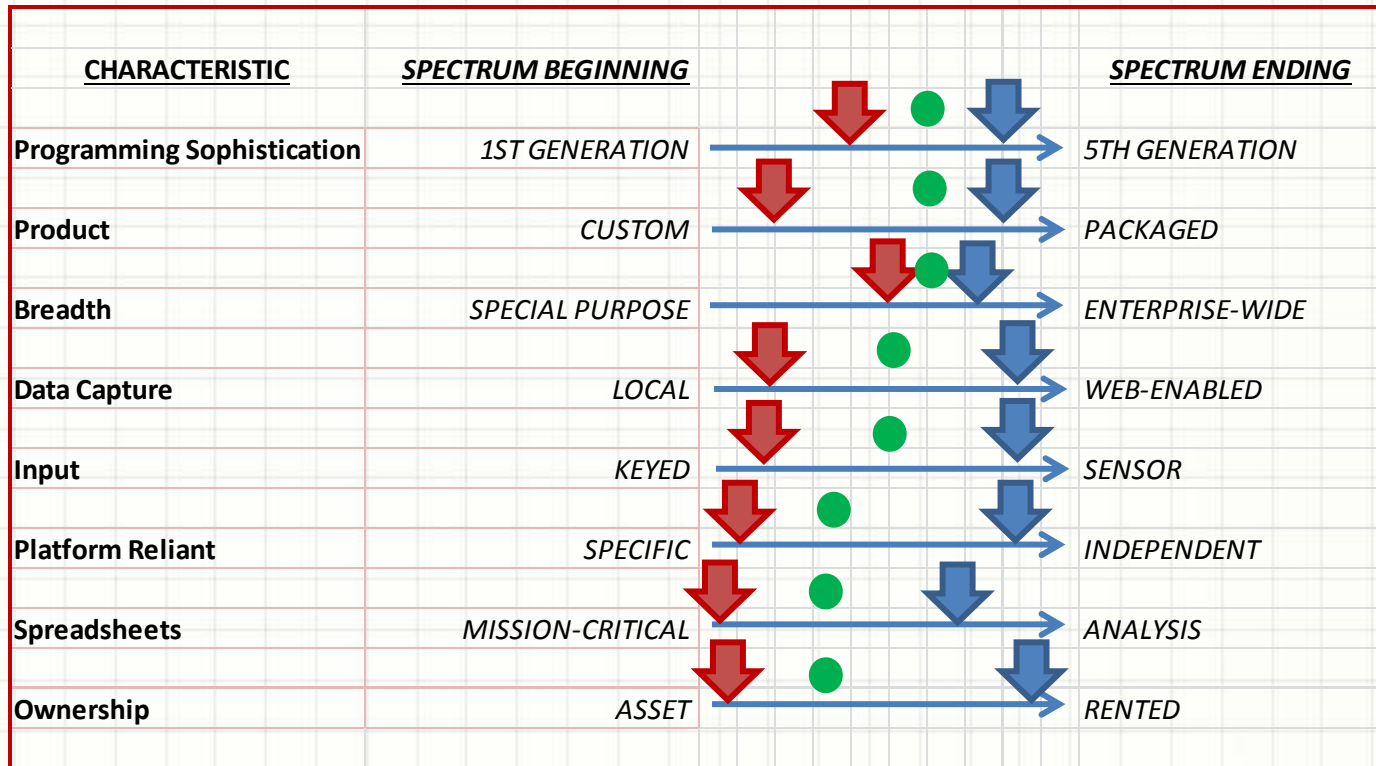
# Information Architecture Gap Analysis



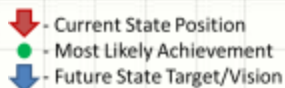
- This chart analyzes the gaps between the existing use of technology (“the Current State”) and the vision and strategies for using technology in the future (“the Future State”). The most likely achievement over the life of this strategic plan is denoted by the annotation between the two ends of the spectrum.



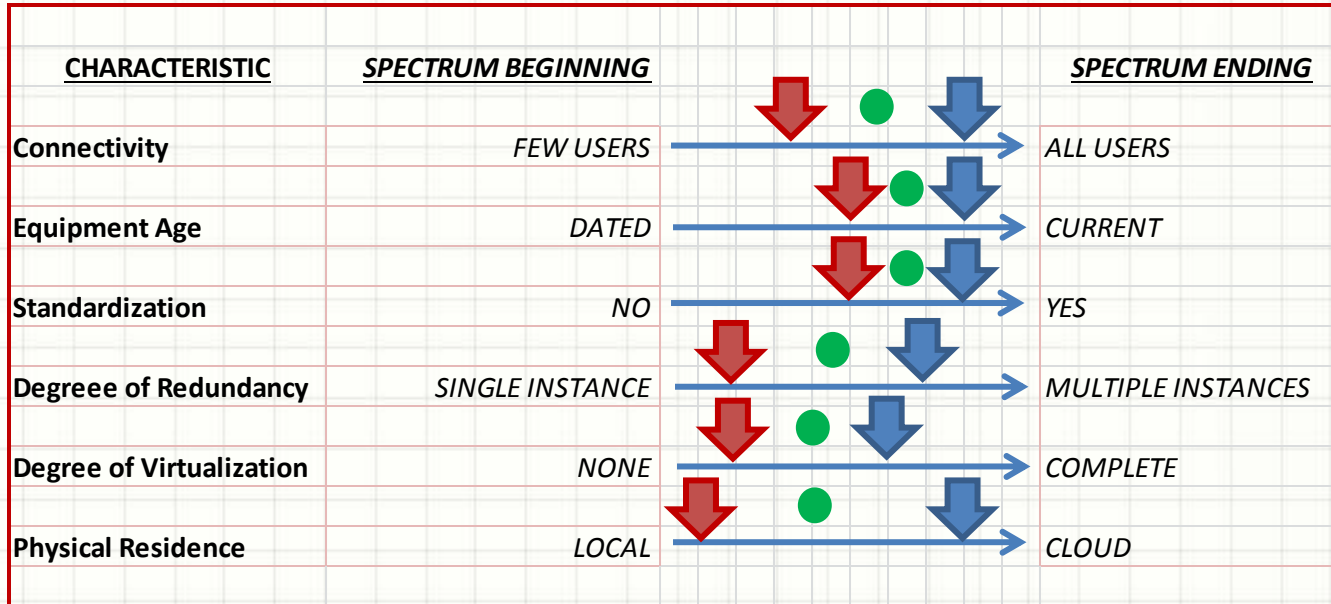
# Application Architecture Gap Analysis



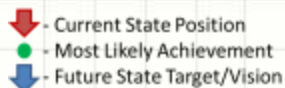
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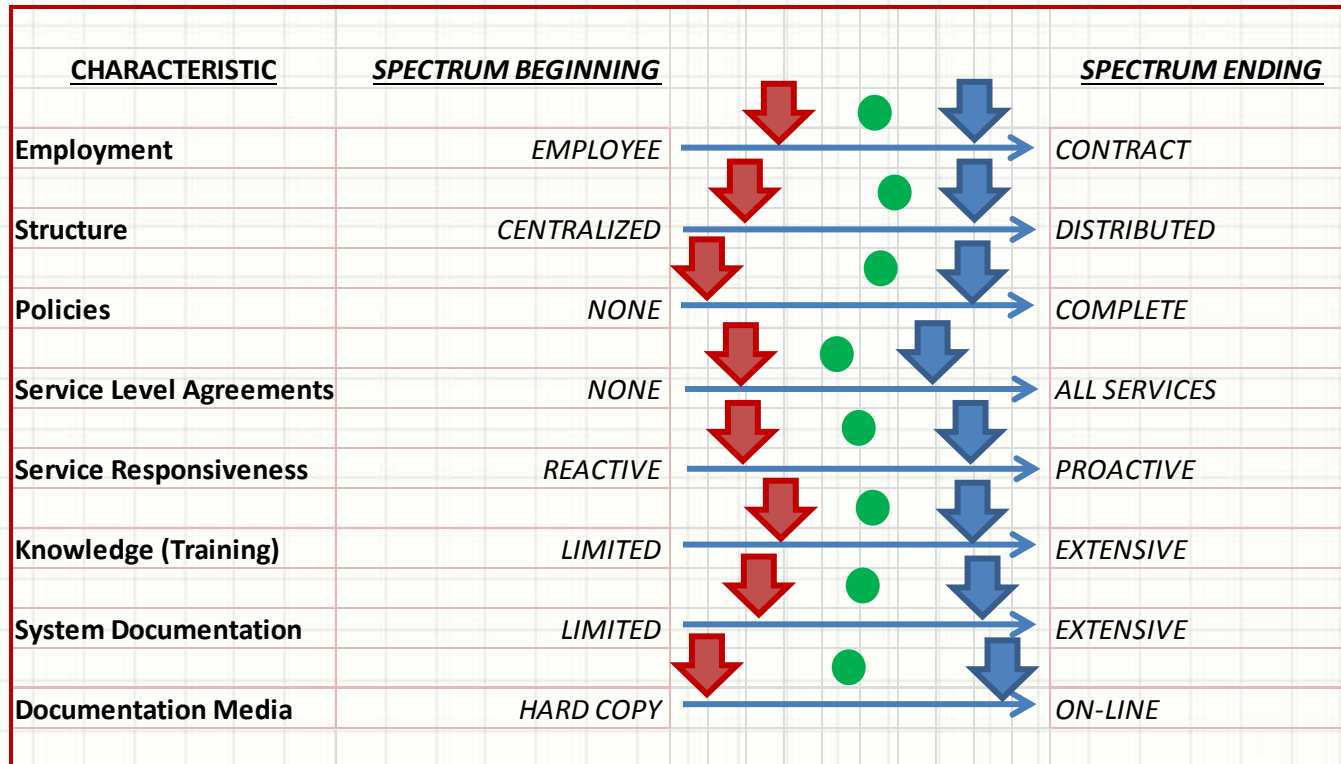
# Technology Architecture Gap Analysis



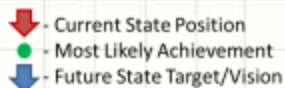
- This chart analyzes the gaps between the existing use of technology (“the Current State”) and the vision and strategies for using technology in the future (“the Future State”). The most likely achievement over the life of this strategic plan is denoted by the annotation between the two ends of the spectrum.



# Staffing Architecture Gap Analysis

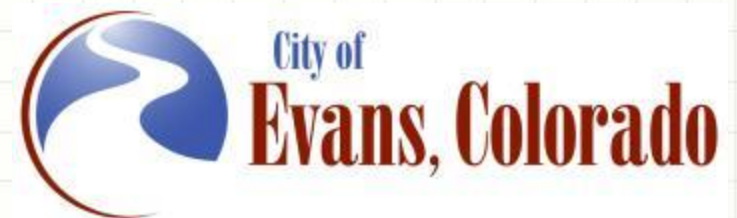


- This chart analyzes the gaps between the existing use of technology (“the Current State”) and the vision and strategies for using technology in the future (“the Future State”). The most likely achievement over the life of this strategic plan is denoted by the annotation between the two ends of the spectrum.





## CLOSING THE GAPS

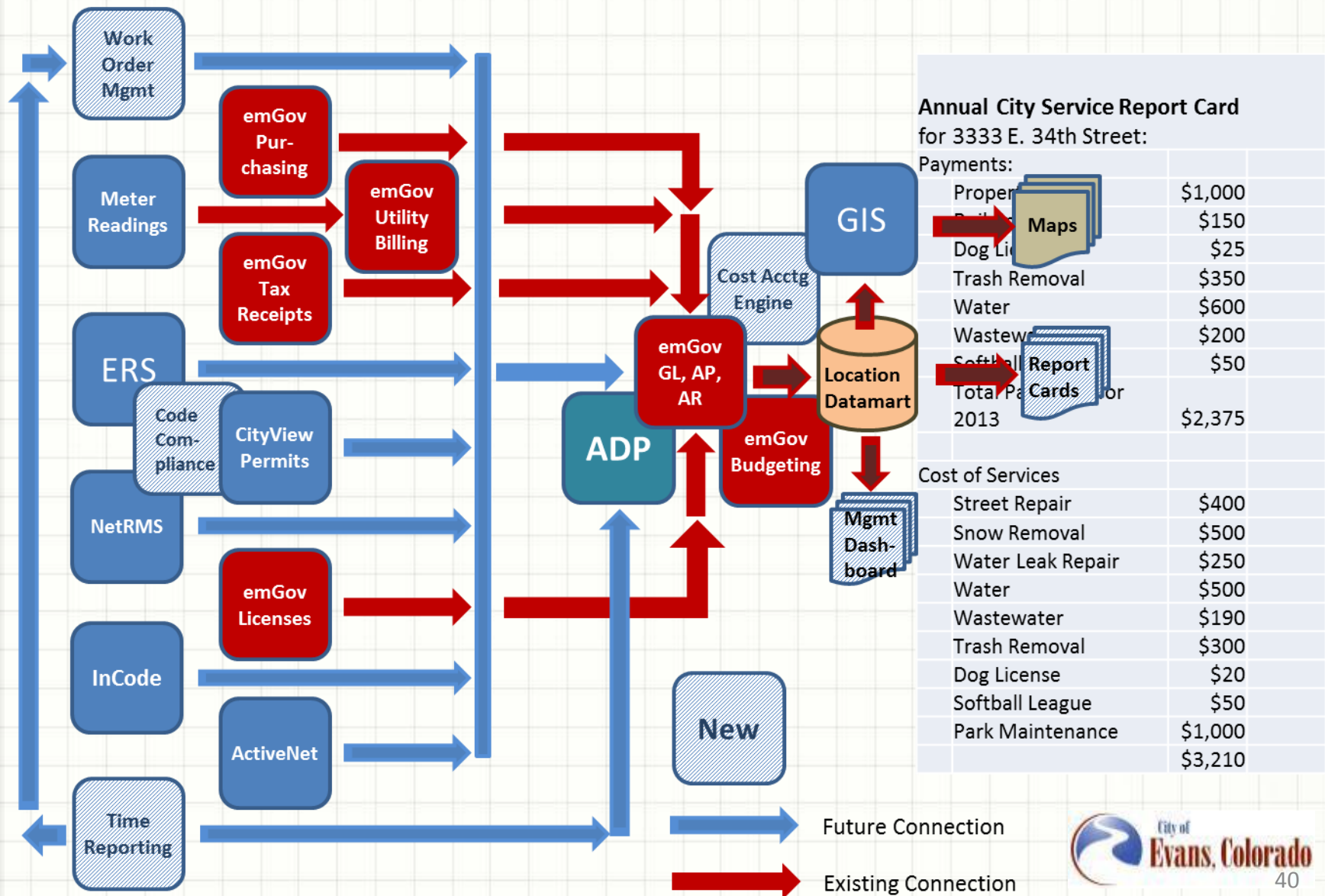




# Gap Correction/Remediation/Mitigation (1)

- Application Architecture Gaps
  - Complete eTicketing Initiative
  - Upgrade/replace netRMS
  - Complete enterprise-wide Permitting/Licensing selection/implementation
  - Complete fixed base meter reading
  - Update individual applications with application-specific 'interior' workflow and dashboards
  - Institute unused EmGov components
  - Institute unused NetRMS components
  - Develop GIS location revenue layer
  - Develop GIS location services Cost layer
  - Develop GIS asset layer
  - Automate acquisition of pavement inspection data
  - Implement wastewater maintenance management system
  - Provide financial modeling system
  - Upgrade/replace CityView
  - Provide web-based NetRMS reporting

# The City's Future Application Environment



# Gap Correction/Remediation/Mitigation (2)

- Information Architecture Gaps

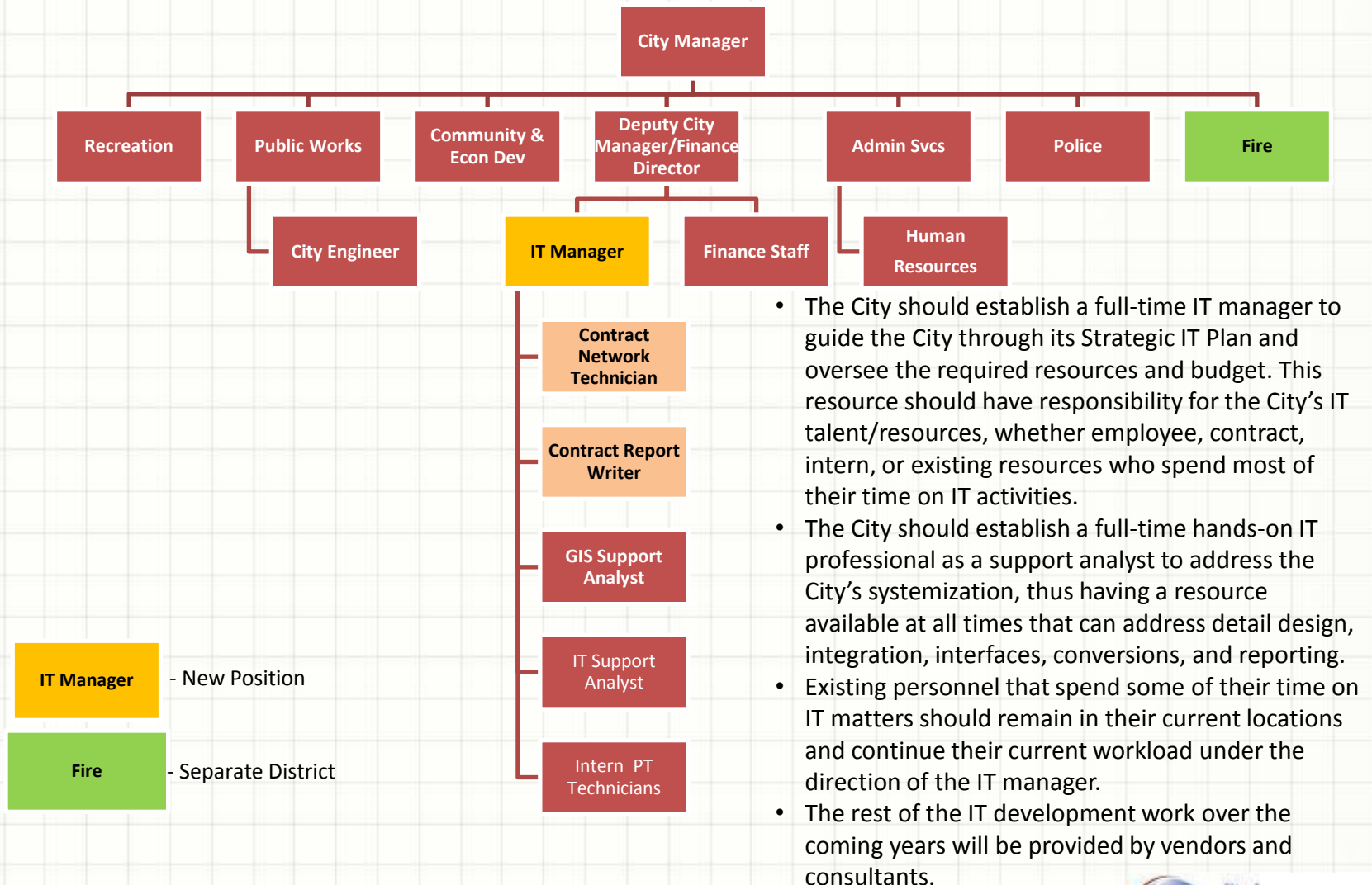
- Enhance existing applications to include/maintain/track location data by service provided
- Develop comprehensive enterprise-wide services cost allocation model
- Use existing enterprise-wide applications enterprise-wide
  - EmGov budgeting
  - EmGov budget vs. actual
  - EmGov asset tracking
  - ADP scheduling, time reporting
- Shift mission-critical Excel spreadsheets to more robust & secure packaged software solutions
- Connect 'Islands of Automation', integrating/interfacing disparate systems
- Establish automated workflow with integrated systems

# Gap Correction/Remediation/Mitigation (3)

- **Technology Architecture Gaps**
  - Update/Replace Hardware/Software following appropriate schedule
  - Establish web-based storage of data (the Cloud)
  - Establish tablets and smartphones for 'field' data capture and reference data capability
- **Staffing Architecture Gaps**
  - Hire full-time IT Manager with hands-on skills with the network and existing technologies
  - Establish Technology Steering Committee
  - Establish IT organization by assigning existing technology analysts to the full-time IT Manager



# Future IT Organization





# IT Organization Roles Overview

## Position

## Role

- |                         |  |
|-------------------------|--|
| • IT Manager            | • Leadership, guidance, execution of strategic plan, contract management, project direction, spreadsheet migration, application connections, dashboard design. |
| • IT Support Analyst    | • Detail design, report development, application connections, spreadsheet migration, new systems analysis.   |
| • GIS Support Analyst   | • Report Card development analysis, GIS support, location configuration across applications.   |
| • Contract Technician   | • Server configuration, network administration, cloud migration, database administration   |
| • Intern PT Technicians | • Hardware maintenance   |

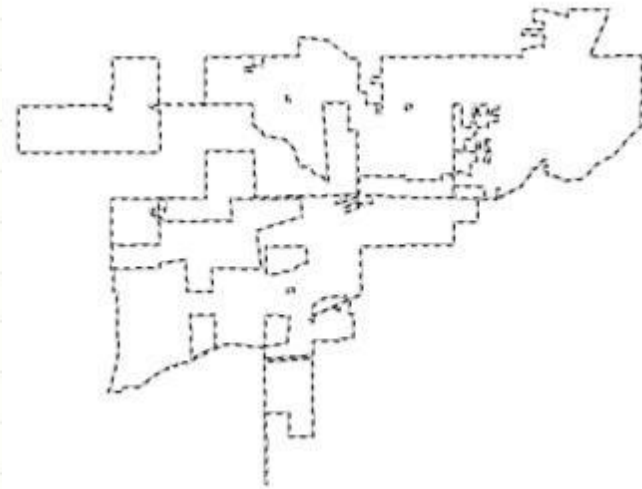
# Quick Hits (Next 6 Months)

- Upgrade dated equipment.
- Establish a secure website for internal data sharing, 'one-version of the truth' (Dropbox or Google Drive).
- Start using the 'Citizen's Web Server'.
- Finish eTicketing Acquisition & Implementation
- Complete first phase of Code Compliance Acquisition & Implementation
- Complete first phase of City Services Report Card Initiative.
- Re-brand as .gov as opposed to .org.

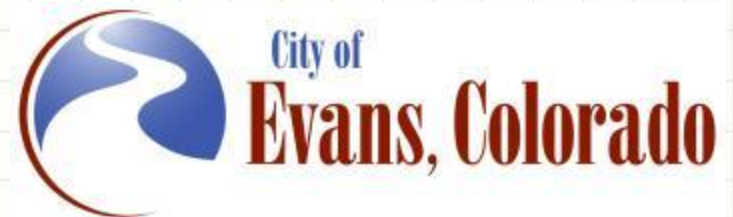
A quick hit is an activity requiring limited investment and can be accomplished in a relatively short period of time.

# Project List

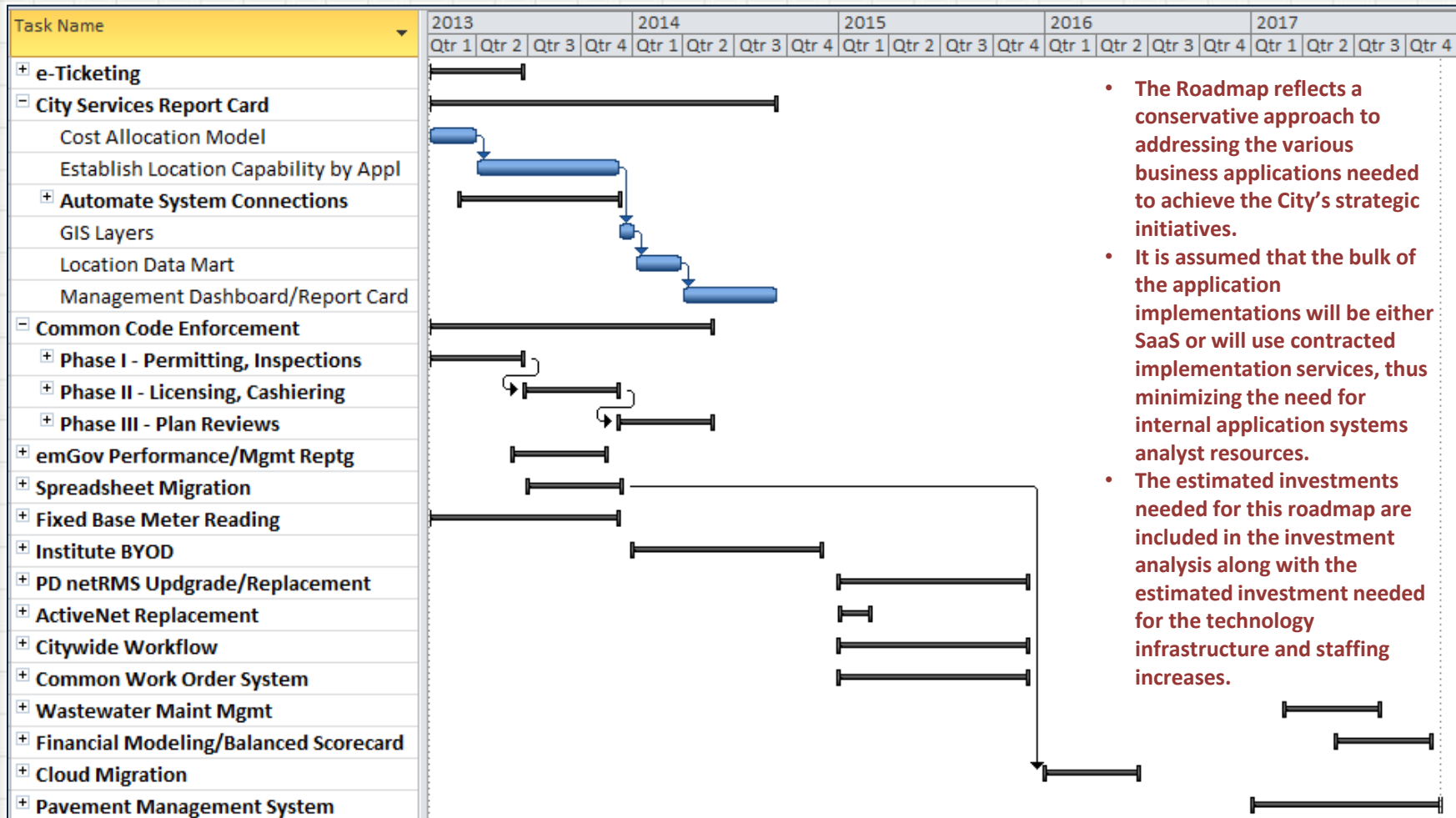
Project	Funding	Comment
Implement eTicketing	General	active
Develop City Svcs Report Card	General	greatest value-add
Upgrade netRMS	General	system support expiring - costly
Implement City-Wide Code Compliance	General	establishes common processes
Replace ActiveNet	General	current system becoming costly
Connect disparate systems	General	supports 'one version of the truth'
Extend emGov/Management Information	General	supports 'one version of the truth'
Establish Workflow Automation	General	increase internal efficiency
Migrate Mission Critical Spreadsheets	General	assures data integrity
Common Work Order Mgmt/Timekeeping	Water	streamlines WO processing,
Initiate BYOD (Tablets, Smartphones)	General	unfetterers field personnel
Extend netRMS usage	General	increases effectiveness
Finish Fixed Base Meter Reading	Water	continue along efficiency curve,
Implement Financial Modeling	General	improved management information
Implement Wastewater Maint Mgmt	Wastewater	current system out-of-date
Establish Balanced Scorecard	General	nice to have
Migrate to Cloud Data Storage	General	efficient data storage
Pavement Inspection Data Collection	General	nice to have



# THE CITY'S ROADMAP TO ITS IT FUTURE



# Evans Strategic IT Roadmap



- The Roadmap reflects a conservative approach to addressing the various business applications needed to achieve the City's strategic initiatives.
- It is assumed that the bulk of the application implementations will be either SaaS or will use contracted implementation services, thus minimizing the need for internal application systems analyst resources.
- The estimated investments needed for this roadmap are included in the investment analysis along with the estimated investment needed for the technology infrastructure and staffing increases.



# Preliminary Investment Recommendations

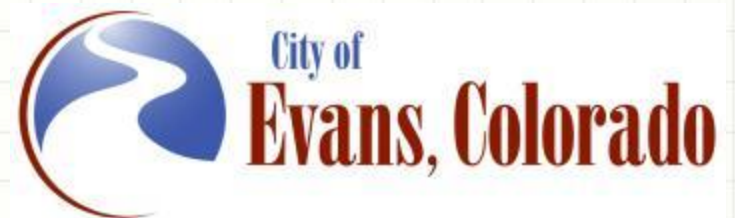
Investment Component	2013	2014	2015	2016	2017	Total	Ave Annual
<b>Budget - Current Operations</b>							
<b>General Fund Funding</b>							
IT Services Budget	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	\$450,000	\$90,000
IT Supplies Budget	\$13,036	\$12,981	\$14,526	\$16,094	\$17,686	\$74,323	\$14,865
IT Supplies & Services Budget	\$103,036	\$102,981	\$104,526	\$106,094	\$107,686	\$524,323	\$104,865
Departmental IT Hardware Budget	\$13,200	\$25,000	\$9,200	\$23,600	\$18,800	\$89,800	\$17,960
Dept IT Software Operating Budget	\$79,455	\$79,455	\$80,255	\$79,455	\$79,455	\$398,075	\$79,615
Departmental IT Staffing Budget	\$139,469	\$139,469	\$139,469	\$139,469	\$139,469	\$697,345	\$139,469
Asset Mgmt Plan	\$20,000	\$20,600	\$22,510	\$23,185	\$23,881	\$110,176	\$22,035
Desktop Replacement	\$20,000	\$20,600	\$22,510	\$23,185	\$23,881	\$110,176	\$22,035
Total General Fund IT Budget	\$375,160	\$388,105	\$378,470	\$394,988	\$393,172	\$1,929,895	\$385,979
Water Fund Funding	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$10,000	\$2,000
Wastewater Fund Funding	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$10,000	\$2,000
<b>TOTAL BUDGETED IT FUNDING</b>	<b>\$379,160</b>	<b>\$392,105</b>	<b>\$382,470</b>	<b>\$398,988</b>	<b>\$397,172</b>	<b>\$1,949,895</b>	<b>\$389,979</b>
<b>Current Operations Expenditures</b>							
<b>Internal Staff</b>	\$139,469	\$139,469	\$139,469	\$139,469	\$139,469	\$697,345	\$139,469
<b>Contract Technician</b>	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$225,000	\$45,000
<b>Contract Technician</b>	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$75,000	\$15,000
<b>Personnel Total</b>	<b>\$184,469</b>	<b>\$184,469</b>	<b>\$184,469</b>	<b>\$184,469</b>	<b>\$184,469</b>	<b>\$922,345</b>	<b>\$184,469</b>
<b>Upgrades/Replacement</b>							
Hardware Replacement	\$13,000	\$10,000	\$8,000	\$25,000	\$17,000	\$73,000	\$14,600
Media Replacement	\$200	\$15,000	\$4,600	\$600	\$3,200	\$23,600	\$4,720
Infrastructure Upgrades	\$26,600	\$10,800	\$1,300	\$8,800	\$15,700	\$63,200	\$12,640
<b>Hardware Total</b>	<b>\$39,800</b>	<b>\$35,800</b>	<b>\$13,900</b>	<b>\$34,400</b>	<b>\$35,900</b>	<b>\$159,800</b>	<b>\$31,960</b>
<b>Software Maint/Support</b>	\$80,330	\$79,455	\$80,255	\$79,455	\$79,455	\$246,600	\$49,320
<b>Current Operation Cost Total</b>	<b>\$304,599</b>	<b>\$299,724</b>	<b>\$278,624</b>	<b>\$298,324</b>	<b>\$299,824</b>	<b>\$1,328,745</b>	<b>\$265,749</b>
<b>Operating Budget Variance</b>	<b>\$74,561</b>	<b>\$92,381</b>	<b>\$103,846</b>	<b>\$100,664</b>	<b>\$97,348</b>	<b>\$621,150</b>	<b>\$124,230</b>
<b>Strategic Improvement Projects</b>							
netRMS Replacement	\$0	\$30,000	\$301,500	\$3,075	\$4,729	\$339,304	\$67,861
Flexnet Completion	\$1,248,000	\$0	\$0	\$0	\$0	\$1,248,000	\$249,600
All Other Projects	\$98,900	\$63,040	\$55,559	\$68,199	\$135,270	\$420,968	\$84,194
<b>Strategic Projects Total</b>	<b>\$1,346,900</b>	<b>\$93,040</b>	<b>\$357,059</b>	<b>\$71,274</b>	<b>\$139,999</b>	<b>\$2,008,271</b>	<b>\$401,654</b>
<b>Needed Future Investment</b>	<b>(\$1,272,339)</b>	<b>(\$659)</b>	<b>(\$253,213)</b>	<b>\$29,390</b>	<b>(\$42,651)</b>	<b>(\$1,539,471)</b>	<b>(\$307,894)</b>

- Projections take a conservative approach by assuming the higher end of estimates and 'rounding up'.
- Improvement Projects consist of software acquisition costs, implementation services, and maintenance costs. Some of the projects use internal staffing instead of contract labor.
- Hardware upgrades and replacement are based on expected equipment life cycles of 3 -7 years. Higher costs in 2013 reflect the existence of some very dated hardware.
- Highest value-add project is the Report Card System.
- Most significant technology projects are the completion of the Flexnet Rollout and replacing the PD Records Mgmt System which is losing maintenance support.

# Next Steps

- Update upcoming annual budget with projected IT expenditures.
- Address 'Quick Hits'.
- Initiate recruiting for IT Manager.
- Establish IT Steering Committee.
- Establish Strategic IT Plan Periodic Review and Update Schedule (semi-annual).
  - Actual expenditures
  - Project completions
  - Out year updates (rolling 5-year)

# APPENDIX



# Appendix Items

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# Interviews & Meetings

Last Name	First Name	Position	Department	Interview Date
Hogan Jr.	Aden	City Manager	City Manager/Admin	10/02/12
Trent	Sheryl	Community & Econ Dev Director	Community & Econ Dev	10/24/12
Gonifas	Jessica	Finance Director	Finance	10/02/12
Jones	Warren	Fire Chief	Fire	10/17/12
Roeder	Julie	HR + Risk Mgmt Director	HR & Risk Mgmt	10/18/12
Brandt	Rick	Police Chief	Police	09/25/12
Parrott	Cameron	City Engineer	Public Works	10/18/12
Smith	Earl	Public Works Director	Public Works	10/17/12
Stone	Brian	Recreation Director	Recreation	10/23/12
John	Morris	Mayor Pro Tem	City Council	10/26/12
Hawker	Steve	IT Contractor - Network Admin		10/04/12
Killion	Christine	Police Support Services Analyst	Police	10/02/12
Freier	Jacob	GIS Coordinator	Public Works	10/02/12
Levy	Joel	IT Contractor - emGov		tbd
Apodaca	Bob	emGov Developer/Installer	emGov Vendor	11/07/12
Scheopner	Jessica	Assistant to the City Manager	City Manager/Admin	10/17/12



# Workshop Summary

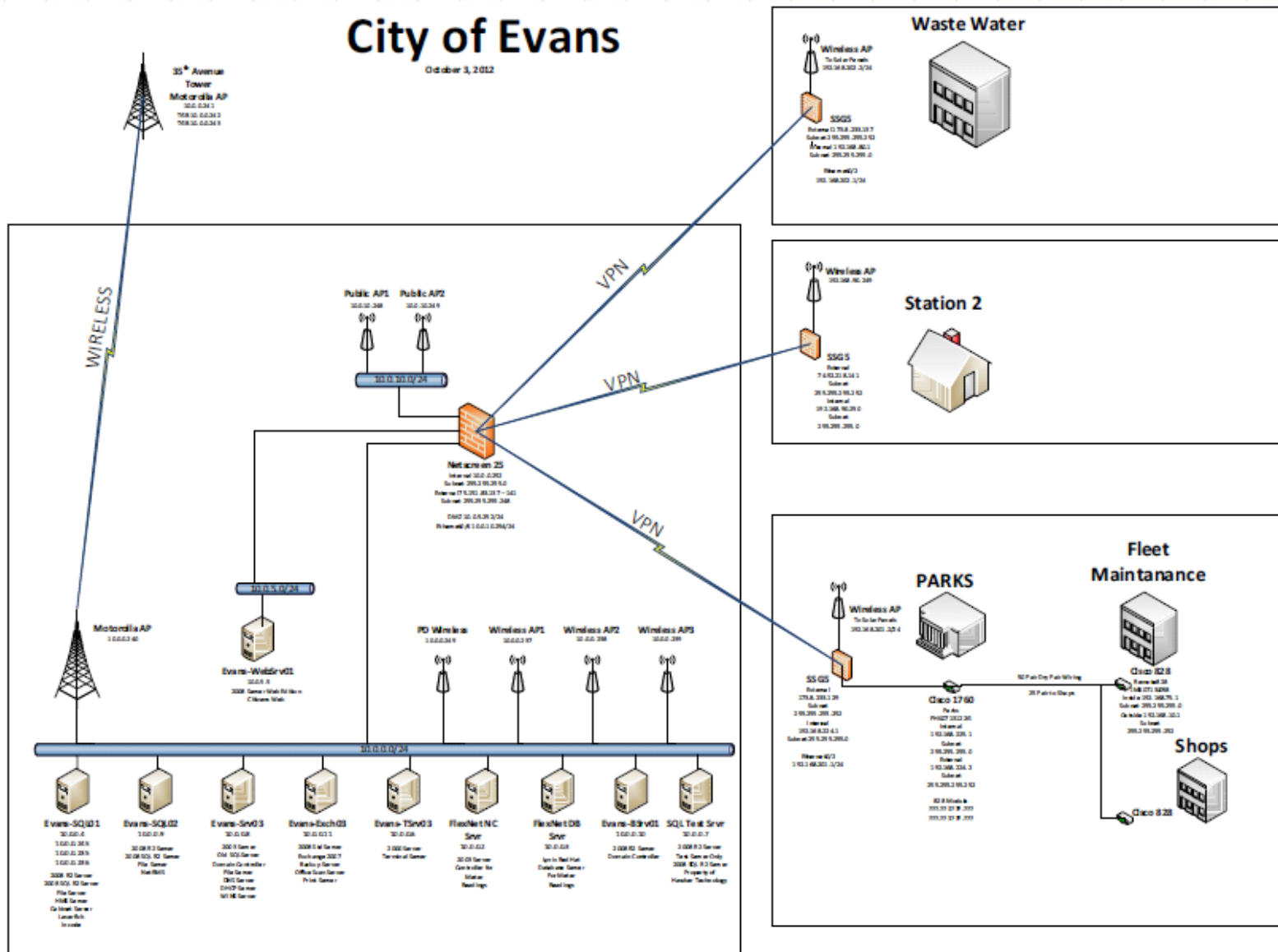
Workshop	Target Date	AM or PM	Status	Orig Est Processes	Actual
Provide Public Safety	10/4/2012	AM	Complete	7	9
Provide Emergency Services	10/23/2012	PM	Complete	8	8
License, Permit, & Inspect	10/24/2012	AM	Complete	6	7
Maintain Fleet	10/24/2012	PM	Complete	5	7
Build Public Facilities	10/25/2012	AM	Complete	2	5
Maintain Public Records	10/26/2012	AM	Complete	5	4
Provide Utility Services	10/30/2012	AM	Complete	2	5
Maintain Public Infrastructure	10/30/2012	PM	Complete	4	7
Manage Materials	10/31/2012	AM	Complete	4	5
Manage Human Resources - A	10/31/2012	PM	Complete	5	5
Manage Human Resources - B	11/6/2012	PM	Complete	5	6
Plan & Manage the Organization	11/1/2012	AM	Complete	4	9
Manage Fiscal Ops - Budget/Rev	11/1/2012	PM	Complete	10	13
Manage Fiscal Ops - Accounting	11/7/2012	AM	Complete	14	14
Adjudicate Cases	11/6/2012	AM	Complete	7	7
Customer Services	11/6/2012	PM	Complete	3	3
<b>TOTAL</b>				88	114
Manage IT	n/a				
Represent, Govern, & Legislate	n/a				

Highlighted – excluded from original scope

# City of Evans IT Infrastructure

## City of Evans

October 3, 2012



# Hardware Analysis

	Investment Component	QTY	2013	2014	2015	2016	2017	Total	Ave Annual
<b>Hardware Upgrades/Replacement</b>									
	Hardware Replacement								
	General Fund Desktops	69	\$9,000	\$5,000	\$3,000	\$13,000	\$16,000	\$46,000	\$9,200
	Water Fund Desktops	3	\$0	\$0	\$0	\$2,000	\$1,000	\$3,000	\$600
	Wastewater Fund Desktops	5	\$0	\$0	\$3,000	\$0	\$0	\$3,000	\$600
	Fire Computing	11	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Police Computing	22	\$4,000	\$5,000	\$2,000	\$10,000	\$0	\$21,000	\$4,200
	Police In-Vehicle	8	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Hardware Sub-Total	118	\$13,000	\$10,000	\$8,000	\$25,000	\$17,000	\$73,000	\$14,600
	Media Replacement								
	General Fund Media	34	\$0	\$15,000	\$2,400	\$0	\$2,000	\$19,400	\$3,880
	Water Fund Media	2	\$0	\$0	\$0	\$0	\$200	\$200	\$40
	Wastewater Fund	2	\$0	\$0	\$200	\$0	\$0	\$200	\$40
	Fire Media	6	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Police Media	11	\$200	\$0	\$2,000	\$600	\$1,000	\$3,800	\$760
	Media Sub-Total	55	\$200	\$15,000	\$4,600	\$600	\$3,200	\$23,600	\$4,720
	Infrastructure Upgrade/Replacement								
	Servers	9	\$18,600	\$10,800	\$0	\$4,800	\$14,400	\$48,600	\$9,720
	Routers & Switches		\$8,000	\$0	\$0	\$0	\$0	\$8,000	\$1,600
	Backup, Recovery, UPS	5	\$0	\$0	\$1,300	\$4,000	\$1,300	\$6,600	\$1,320
	Infrastructure Sub-Total	14	\$26,600	\$10,800	\$1,300	\$8,800	\$15,700	\$63,200	\$12,640
	<b>Hardware Total</b>	<b>187</b>	<b>\$39,800</b>	<b>\$35,800</b>	<b>\$13,900</b>	<b>\$34,400</b>	<b>\$35,900</b>	<b>\$159,800</b>	<b>\$31,960</b>

# Software Analysis

	Investment Component	QTY	2013	2014	2015	2016	2017	Total	Ave Annual
<b>Current Software Operating Cost</b>									
	emGov - Financials		\$10,080	\$10,080	\$10,080	\$10,080	\$10,080	\$50,400	\$10,080
	AutoCAD		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$5,000	\$1,000
	ArcGIS		\$4,700	\$4,700	\$4,700	\$4,700	\$4,700	\$23,500	\$4,700
	Rosetta Stone		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	LaserFiche		\$2,104	\$2,104	\$2,104	\$2,104	\$2,104	\$10,520	\$2,104
	Emergency Rptg Sys (ERS)		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Incode Central		\$3,076	\$3,076	\$3,076	\$3,076	\$3,076	\$15,380	\$3,076
	CityView		\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$35,000	\$7,000
	Maxicom 2 Irrigation Control System		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Cabinet NG		\$5,695	\$5,695	\$5,695	\$5,695	\$5,695	\$28,475	\$5,695
	ActiveNet		\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$75,000	\$15,000
	Petro Vend		\$400	\$400	\$400	\$400	\$400	\$2,000	\$400
	Payroll, HR, Time		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Spillman Mobile		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	NetRMS		\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$150,000	\$30,000
	Oriador		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	ArcGIS		\$400	\$400	\$400	\$400	\$400	\$2,000	\$400
	Traffic Accident		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	ADORE		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Business Applications	27	\$79,455	\$79,455	\$79,455	\$79,455	\$79,455	\$397,275	\$79,455
	Automated Tools (Licenses)	159	\$0	\$0	\$800	\$0	\$0	\$800	\$160
	Operating Software (Licenses)	470	\$875	\$0	\$0	\$0	\$0	\$875	\$175
	<b>Software Licenses Total</b>	656	\$80,330	\$79,455	\$80,255	\$79,455	\$79,455	\$398,950	\$79,790



# Future Project Analysis

	Investment Component	QTY	2013	2014	2015	2016	2017	Total	Ave Annual
<b>Improvement Projects</b>									
	eTicketing		\$21,500	\$2,000	\$2,100	\$2,205	\$2,315	\$30,120	\$6,024
	Report Card		\$24,000	\$45,200	\$1,260	\$1,260	\$1,323	\$73,043	\$14,609
	netRMS Upgrade/Replacement		\$0	\$30,000	\$301,500	\$3,075	\$4,729	\$339,304	\$67,861
	Common Code Compliance (CityView)		\$63,500	\$5,000	\$5,250	\$5,513	\$2,500	\$81,763	\$16,353
	ActiveNet Replacement		\$0	\$0	\$24,167	-\$5,000	-\$4,500	\$14,667	\$2,933
	emGov Update - Performance/Management		\$10,800	\$840	\$882	\$926	\$972	\$14,421	\$2,884
	Citywide Workflow		\$0	\$0	\$8,000	\$8,000	\$0	\$16,000	\$3,200
	Spreadsheet Migration		\$0	\$0	\$0	\$0	\$8,000	\$8,000	\$1,600
	Common Work Order System		\$0	\$0	\$0	\$57,500	\$5,000	\$62,500	\$12,500
	Institute BYOD		\$0	\$0	\$16,000	\$0	\$0	\$16,000	\$3,200
	Extend netRMS Usage		\$0	\$0	\$0	\$0	\$6,000	\$6,000	\$1,200
	Complete Fixed Base Meter Reading		\$1,248,000	\$0	\$0	\$0	\$0	\$1,248,000	\$249,600
	emGov Financial Modeling		\$600	\$0	\$0	\$0	\$7,600	\$8,200	\$1,640
	Wastewater Maint Mgmt		\$0	\$0	\$0	\$0	\$10,375	\$10,375	\$2,075
	Cloud Migration		\$0	\$0	\$0	\$0	\$8,000	\$8,000	\$1,600
	Pavement Mgmt Sys Replacement		\$0	\$0	\$0	\$0	\$90,000	\$90,000	\$18,000
	<b>Total</b>		<b>\$1,346,900</b>	<b>\$81,040</b>	<b>\$357,059</b>	<b>\$71,274</b>	<b>\$139,999</b>	<b>\$1,996,271</b>	<b>\$399,254</b>

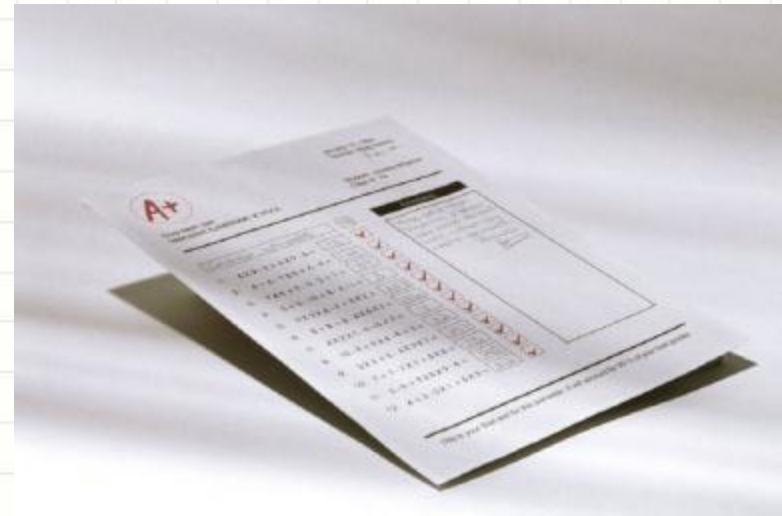


# Survey Summary

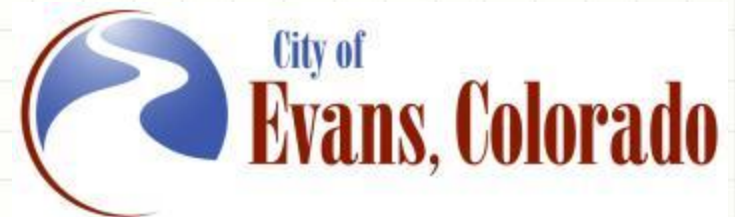
- 1/3 participation, very good considering 10% is norm.
- There were responses from each major department
- Strong participation by City leadership (almost half were 'management')
- Average length of City employment: almost 8 years
- Most are computer savvy (2/3) – average of nearly 20 years of experience/exposure
- Overall, 75% are satisfied with Information Technology
- Virtually everyone uses Excel as part of their job.
- Almost ¾ perceive they receive the bulk of their IT support from a contractor.
- 1/3 do not believe their IT equipment/hardware replacement cycle meets their needs.
- 3/4 say that technology is managed at the department level.

# Comments from Survey

- Need interdepartmental communications through automation.
- Critical to link Spillman to Emergency Reporting through dispatch.
- Need an inhouse technology leader.
- Need to enable tech-savvy personnel for making technology decisions.
- Collaboration across departments when making major technology purchases would be helpful.
- Budget restrictions are real.
- Streamlining through technology from the field is essential.
- Would be helpful to have inhouse staff provide first line of IT support.
- Still have emGov usage issues – a training statement.
- Need electronic access to maintenance records for property infrastructure.
- Want tablets and smartphones so can be paperless.
- Like the idea of dashboards.
- Want GIS-based asset management.
- Collaboration tool such as Sharepoint enables workflow.
- Increase use of social media.
- Want work order management software.



## THE CITY'S SERVICES 'REPORT CARD' INITIATIVE



# How Can City Stakeholders Get Their 'Bang for the Buck' – Answer These Questions.

- Constituents, Residents, Business Owners:
  - Do homeowners recognize and accept what they receive in services for their tax dollars?
  - Do homeowners understand what their fees and fines support?
  - Do business owners recognize and accept what they receive in services for their tax, fee, permit, and license dollars?
- City Management, Leadership
  - Does management know if fees and fines pay the cost of the services related to the income?
  - Does management know what the direct costs of service activities are?
  - Is management able to match revenues to costs?



# This Means...Match Revenues & Costs

- A Best Practice: GAAFR, GAAP
- Easiest: End of Year;
  - Totals such as Fund or Program
  - Fee for Service
- Hardest: Upon Occurrence;
  - Services for the 'good of all'
  - Overhead (Administrative Support)
- Key to the Solution: use the 'lowest common denominator' for capturing and reporting the data: taxpayer location (address).



# Examples of Matching Cost & Revenue..

- Easy:
  - \$xx/dog license
  - \$yy/trash hauling
  - \$zz/water tap
- Harder:
  - \$xx/snow removal
  - \$yy/street repair
  - \$zz/park mowing
- Hardest:
  - \$xx/emergency call
  - \$yy/domestic violence incident

Matching revenues and costs will mean that the City will need to capture services provided to a taxpayer, whether identifying a water tap to a taxpayer (easily accomplished) or assigning a portion of its snow removal to a particular taxpayer's address (which requires a full cost accounting model for the allocation of 'overhead' costs to a portion of street that has been cleared).

# Constituent's City Report Card...

An annual report of what the stakeholder (at an address) has paid in the prior year for the services received. The same data should be generated throughout the year for management's internal review and examination.

## Annual City Service Report for 3333 E. 34th Street:

### Payments:

Property Taxes	\$1,000
Building Permit	\$150
Dog License	\$25
Trash Removal	\$350
Water	\$600
Wastewater	\$200
Softball League	\$50
Total Payments for 2013	\$2,375

### Cost of Services

Street Repair	\$400
Snow Removal	\$500
Water Leak Repair	\$250
Water	\$500
Wastewater	\$190
Trash Removal	\$300
Dog License	\$20
Softball League	\$50
Park Maintenance	\$1,000
	\$3,210

# Example Services Standard Costing

The key to the Report Card and to Effective Service Performance Reporting will be the development of 'units of service' for all City activity and being able to allot all City expenditures to each 'unit of service'. With a foundational cost accounting model, the City will be able to capture data by units of service throughout the year, report performance periodically to management and then summarize at the end of the year for the constituent, taxpayer, business owner.

Fund/Department	Wages	Supplies & Services	Total	Svcs % Total	Gen Govt Alloc	Loaded Cost	Units of Service	QTY	Std Cost Per Unit
General Fund									
General Government	\$1,000,000	\$1,250,000	\$2,250,000						
Community Development	\$350,000	\$100,000	\$450,000	6%	\$129,808	\$579,808	Equiv Inspections	500	\$1,160
Police & Muni Court	\$3,000,000	\$250,000	\$3,250,000	42%	\$937,500	\$4,187,500	Equiv Citations	5,000	\$838
Fire	\$1,300,000	\$150,000	\$1,450,000	19%	\$418,269	\$1,868,269	Emergency Calls	1,500	\$1,246
Public Works	\$850,000	\$700,000	\$1,550,000	20%	\$447,115	\$1,997,115	Work Orders	1,200	\$1,664
Culture, Parks, & Recreation	\$600,000	\$500,000	\$1,100,000	14%	\$317,308	\$1,417,308	Equiv Activities	2,000	\$709
Services Total	\$6,100,000	\$1,700,000	\$7,800,000	100%	\$2,250,000	\$10,050,000			
General Fund Total	\$7,100,000	\$2,950,000	\$10,050,000						

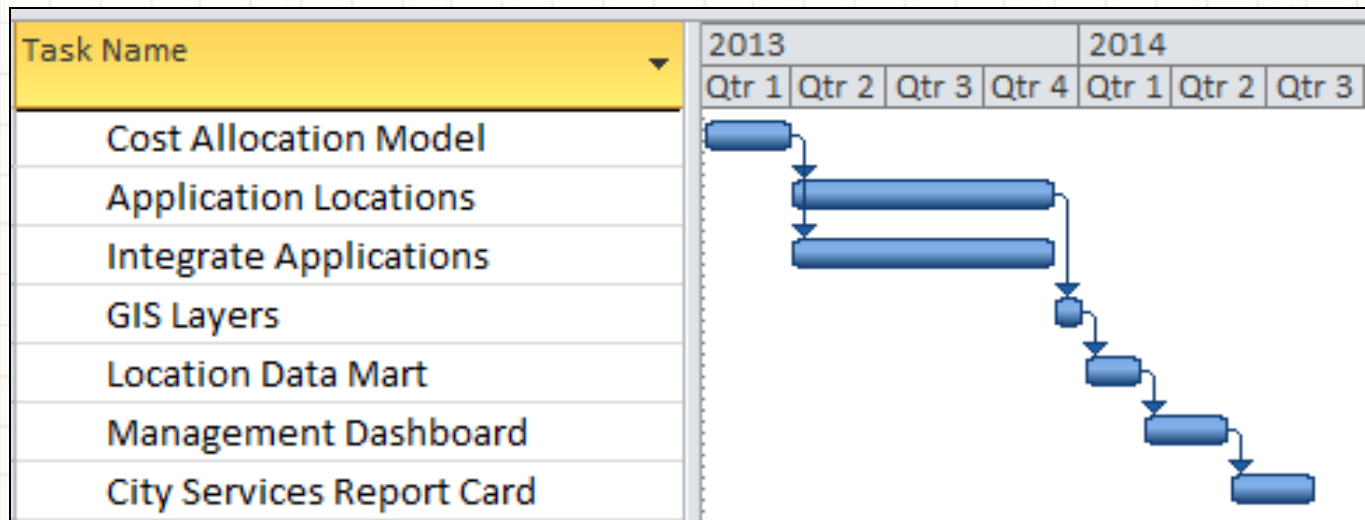
- General Fund Approximations from the 2012 Budget
- Excluding all other funds, transfers, etc.
- Using a single estimated unit of service by department

# The Critical Path Activities...

- Develop standard services definitions
- Create equivalent services definitions as needed
- Develop cost allocation model
- Define location identifiers for taxpayers
- Establish location identifiers in all system that collect revenue, track services and capture costs.
- Obtain, establish appropriate cost accounting engine
- Connect core information gathering systems to emGov/Cost Accounting engine
- Develop Location Data Mart
- Develop Appropriate GIS Layers
- Develop Management Dashboards, Services Performance Rptg
- Develop Meaningful Constituent (Taxpayer) Services Report Card

# The Outlook...

- Minimum of a year for development
  - Design
  - Changes to Source Systems
  - Linking layers in GIS
- Decision of where 'standard costs' would reside
- Resolving how to generate a report card per location from GIS
- Determining if all source systems will flow through emGov or feed GIS directly
- To issue first report at end of 2014, must start in 2013.





# Glossary

Term	Definition
<b>Business Process</b>	A business process or business method is a collection of related, structured activities or tasks that produce a specific service or product (serve a particular goal) for a particular customer or customers. It often can be visualized with a flowchart as a sequence of activities.
<b>Cloud Computing</b>	Cloud computing is Internet-based computing, whereby shared resources, software, and information are provided to computers and other devices on demand, like the electricity grid.
<b>Dashboard Report</b>	A management tool that measures and presents critical data on the key business performance areas in a summarized manner, often graphically, much like a car dashboard, so the management can quickly respond with appropriate decisions.
<b>Drill-Down</b>	The act of examining something in more depth, to look at the components of a total.
<b>IaaS</b>	Infrastructure-as-a-service, or IaaS, is the category of cloud computing that refers to Web-based access to storage and computing power on the cloud.
<b>Normalized Data</b>	Data that has been adjusted or reduced to eliminate redundancies and anomalies.
<b>ODBC</b>	In computing, Open DataBase Connectivity provides a standard software interface for accessing DataBase Management Systems (DBMS) that is independent of programming languages, database systems, and operating systems.
<b>OLAP</b>	OnLine Analytical Processing is an approach to swiftly answer multi-dimensional analytical queries; typically with the use of Decision Support Software that provides for the analysis of data in a multidimensional database with views and hierarchies.
<b>Open Architecture</b>	Vendor-independent, non-proprietary, computer system or device design based on official and/or popular standards. It allows all vendors (in competition with one another) to create add-on products that increase a system's (or device's) flexibility, functionality, interoperability, potential use, and useful life. And enables the users to customize and extend a system's (or device's) capabilities to suit individual requirements.
<b>PaaS</b>	Platform as a service, or PaaS, is one of the categories of Cloud Computing; it delivers a fully baked application development environment you can subscribe to and use immediately; with PaaS, developers use free programming tools offered by the service provider to create applications and deploy ...
<b>RFID</b>	Radio Frequency Identification, denoting technologies that use radio waves to identify people or objects carrying encoded microchips
<b>SaaS</b>	Software as a service (SaaS, sometimes referred to as "software on demand," is software that is deployed over the internet and/or is deployed to run behind a firewall on a local area network or personal computer. ...
<b>Strategic Initiatives</b>	Strategic Initiatives are those plans, actions and projects which make significant contributions to the continued operations and modernization of the City as it grows. Initiatives cross departmental boundaries and set the framework for IT projects and activities
<b>Value Stream</b>	A value stream is a chain of business processes, activities, and tasks that an organization operating in a specific industry performs in order to deliver something valuable (product or service). Services pass through activities of a stream, and at each activity the service gains some value.
<b>Virtualization</b>	A method of partitioning one physical server computer into multiple "virtual" servers, giving each the appearance and capabilities of running on its own dedicated machine. Each virtual server functions as a full-fledged server and can be independently rebooted.
<b>Workflow</b>	A <b>workflow</b> consists of a sequence of concatenated (connected) steps. Emphasis is on the <i>flow</i> paradigm, where each step follows the precedent without delay or gap and ends just before the subsequent step may begin. This concept is related to non overlapping tasks of single resources. In computing, this typically includes the automated notification of the completion of an activity in the sequence and indicating to the next actor in the flow that work is in their 'inbox'.